CLAIMS

1. A method for remote control of an apparatus (40), using a control device (1, 1a, 1c) carried by the user, and comprising steps of:

- measuring movements of the control device along at least a first axis (Z);
- determining commands to be applied to the apparatus to be controlled as a function of the movement measurements of the control device, and
- applying the commands to the apparatus to be controlled,

characterized in that it further includes steps during which the control device (1, 1a, 1c) transmits the movement measurements and radio-electric signals to a processing device (20, 20a, 20c) connected to the apparatus to be controlled (40), and the processing device:

- receives movement measurements and radio-electric signals from the control device through at least first and second antennas (34, 35; 84, 86) spaced out along a second axis (X) non-parallel to the first axis (Z);
- demodulates in synchronous manner with a reference signal (I, Q, 2F), the radio-electric signals received by the first and second antennas respectively, and
- determines the commands to be applied to the apparatus to be controlled, the commands comprising displacement information along at least the second axis (X), determined as a function of demodulated signals (X_D, X_G, Z_D, Z_G), and control activation information determined as a function of movement measurements along the first axis (Z), received from the control device.

2. The method according to claim 1, characterized in that the movement measurements along the first axis (Z), carried out by the control device (1, 1a, 1c) are measurements of acceleration of the control device along the first axis, the processing device (20, 20a, 20c) determining the control activation information by comparing the measured acceleration with at least one predefined threshold.

3. The method according to either one of claims 1 or 2, characterized in that the processing device (20c) receives the radio-electric signals emitted by the control device (1c) through at least a third antenna (85, 87), separated from

the first and second antennas (84, 86) along a third axis (Y) non-parallel to the first and second axes (X, Z) and determines information about the control device (1, 1a, 1c) displacement along the third axis (Y), by measuring phase shifts (Y_D, Y_G) between the reference signal (2F) and the radio-electric signals received by the processing device through the third antenna.

4. The method according to any one of claims 1 to 3, characterized in that it further comprises a step of periodic transmission of radio-electric signals to the control device (1, 1a, 1c), the steps of measuring and transmitting movement measurements of the control device being carried out only after reception of the activation signal.

5. The method according to any one of claims 1 to 4, characterized in that it further comprises steps of:

- transmitting an activation radio-electric signal having a predefined frequency to the control device (1, 1a, 1c);
- doubling the frequency of the activation signal by the control device (1, 1a, 1c) for generating a carrier having a frequency twice that of the activation signal;
- modulating the carrier to transmit movement measurements of the control device to the processing device (20, 20a, 20c), and
- generating the reference signal (I, Q, 2F) by the processing device consisting of doubling the frequency of the activation signal.

6. The method according to any one of claims 1 to 4, characterized in that the movement measurements along the first axis (Z) are transmitted by the control device (1a, 1c) in the form of light signals.

7. A control system for remote control of an apparatus (40), the control system comprising a control device (1, 1a, 1c) carried by the user and communicating with the apparatus to be controlled, the control device comprising means for measuring its movements along at least a first axis (Z), characterized in that the control device (1, 1a, 1c) comprises means (12, 41, 82) for emitting movement measurements and radio-electric signals, the system further comprising a processing device (20, 20a, 20c) connected to the apparatus to be controlled (40) and to at least the first and second antennas

(34, 35; 84, 86; 85, 87) spaced out along a second axis (X) non-parallel to the first axis (Z), and receiving the radio-electric signals emitted by the control device, the processing device comprising:

- means for receiving movement measurements emitted by the control device;
- means (28 to 31) for demodulating in a synchronous manner with a reference signal (I, Q, 2F), the radio-electric signals received from the control device (1, 1a, 1c) respectively through the intermediary of the first and second antennas (34, 35; 84, 86);
- means (21) for defining the displacement information along at least the second axis (X) as a function of the measured phase shifts;
- means (21) for defining control activation information as a function of movement measurements along the first axis (Z), received from the control device, and
- means for defining commands to be applied to the apparatus to be controlled (40), from displacement and control activation information.

8. A control system according to claim 7, characterized in that the control device (1, 1a, 1c) comprises means for measuring acceleration of the control device along the first axis (Z), and for transmitting the acceleration measurements along this axis to the processing device (20, 20a, 20c), the processing device comprising means for comparing the received acceleration measurements with a predefined threshold, to determine the control activation information.

9. A control system according to either claim 7 or 8, characterized in that the processing device (20c) comprises at least one third antenna (85, 87) spaced out from said first and second antennas along a third axis (Y) non-parallel to the first and second axes (Z, X), means (29, 31) for measuring phase shifts between the signals received by the third antenna and the reference signal (I, Q, 2F), and means for determining a displacement of the control device (1c) along the third axis, as a function of phase shifts measured by phase shift measurement means (28 to 31).

10. A control system according to any one of claims 7 to 9, characterized in that the control device (1) comprises means for transmitting

the movement measurement signals along at least the first axis (Z) by modulation of the radio-electric signals.

11. A control system according to any one of claims 7 to 10, characterized in that the processing device (20, 20a, 20c) comprises means (26, 36) for periodic transmission of a radio-electric signal for activating the control device (1, 1a, 1c), the control device comprising means (2, 3) for detecting reception of the activation signal, means (9) for being at least partially off-line in the absence of detection of an activation signal, and means for activating the transmission of signals to the processing device within a predetermined time period after reception of the signal from the activation signal.

12. A control system according to claim 11, characterized in that the control device (1) comprises a frequency doubler (5, 45) to which the activation signal is applied for generating a carrier having a frequency twice that of the activation signal, and means (6, 7) for modulating the carrier as a function of movement measurements along at least the first axis (Z), and means for emitting the modulated carrier in the form of radio-electric signals, the processing device comprising a frequency doubler (27, 53) for generating the reference signal (I, Q, 2F) from the activation signal.

13. A control system according to any one of claims 7 to 11, characterized in that the control device (1a, 1c) comprises means for transmitting movement measurement signals from the control device along at least the first axis (Z) in the form of light signals.

14. A control system according to any one of claims 7 to 13, characterized in that the control device comprises a switch (13) for putting it off-line.

15. A control system according to any one of claims 7 to 14, characterized in that the control device (1, 1a, 1b, 1c) has a shape such that it can be fixed over a finger of the user.

16. A control system according to claim 15, characterized in that the control device comprises a switch (13) for putting it off-line, arranged in such a way as to be on-line only when it is slipped onto a finger of the user.